

## INTRODUCTION

Global Superstore is a leading global online retailer based in New York, offering a diverse product catalog designed to serve a broad international customer base. With operations spanning **147 countries**, the company aims to be a **one-stop-shop** for consumers by providing a vast selection of **over 10,000 products** across three key categories:

- **Office Supplies** (e.g., staples, paper, writing materials)
- **Furniture** (e.g., chairs, desks, storage solutions)
- **Technology** (e.g., smartphones, laptops, accessories)

This project focuses on leveraging **data analytics and visualization techniques** to uncover insights that can drive **profitability, customer engagement, and cost efficiency**.

By analyzing historical sales data, this study will identify **key trends**, evaluate **regional profitability**, assess **shipping costs**, and provide **data-backed recommendations** to enhance business performance. The findings will help Global Superstore make informed decisions on **product offerings, pricing strategies, and operational improvements** in different global markets.

## Objective

This project aims to analyze Global Superstore's sales and operational data to:

1. **Identify key trends** in sales, profitability, and customer purchasing behavior.
2. **Evaluate regional performance**, including the most and least profitable countries.
3. **Assess the impact of shipping costs** on profitability, particularly in high-cost regions.
4. **Analyze product subcategories** to determine the most and least profitable ones.
5. **Investigate customer segmentation**, including return patterns and high-value customers.
6. **Provide actionable recommendations** to improve profitability, optimize logistics, and enhance customer retention.

## Research Questions

1. Which countries generated the most profit?
2. Which subcategories have the highest shipping costs?

3. What is Nigeria's profitability compared to other African countries?
4. Which customer segments show the most returns?
5. Who are the most valuable customers?

## Data & Methodology

### ◆ Dataset Description

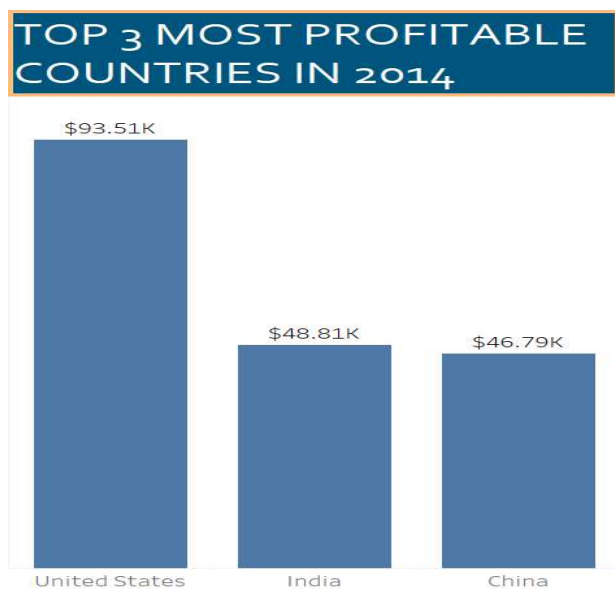
- Source: **Global Superstore Dataset**
- Number of records: XX,XXX (mention total records)
- Key columns used:
  - Order Date, Country, Sales, Profit, Shipping Cost, Product Category, Customer Segment
- Any **data cleaning** done in Tableau.

### ◆ Tools Used

- **Tableau** (for data visualization & analysis)
- **Excel / SQL** (for data validation & exploration)
- **Colab - Python** (for data cleaning)

## Key Findings & Insights

### Top Three Countries by Total Profit in 2014

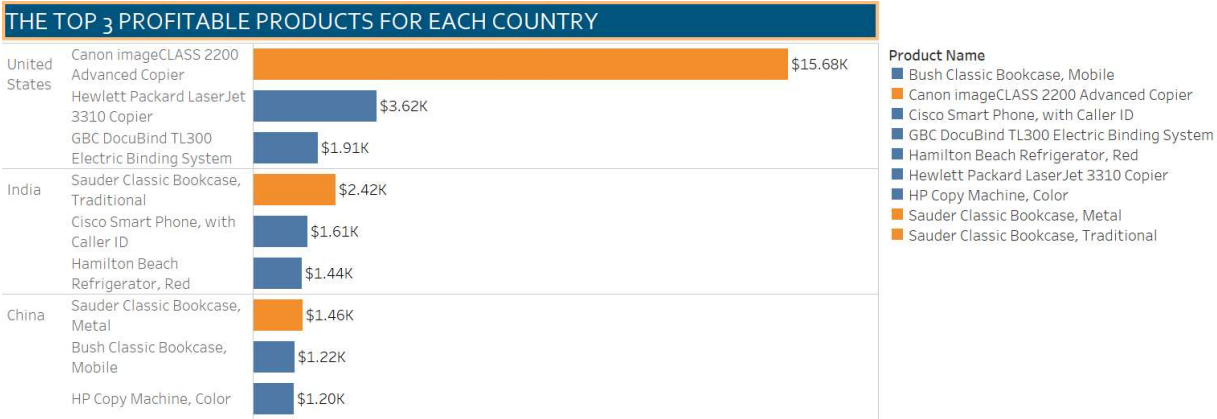


### Insight:

The United States significantly outperformed all other countries in 2014, generating nearly **double the profit** of India and China. This establishes the U.S. as a critical revenue center,

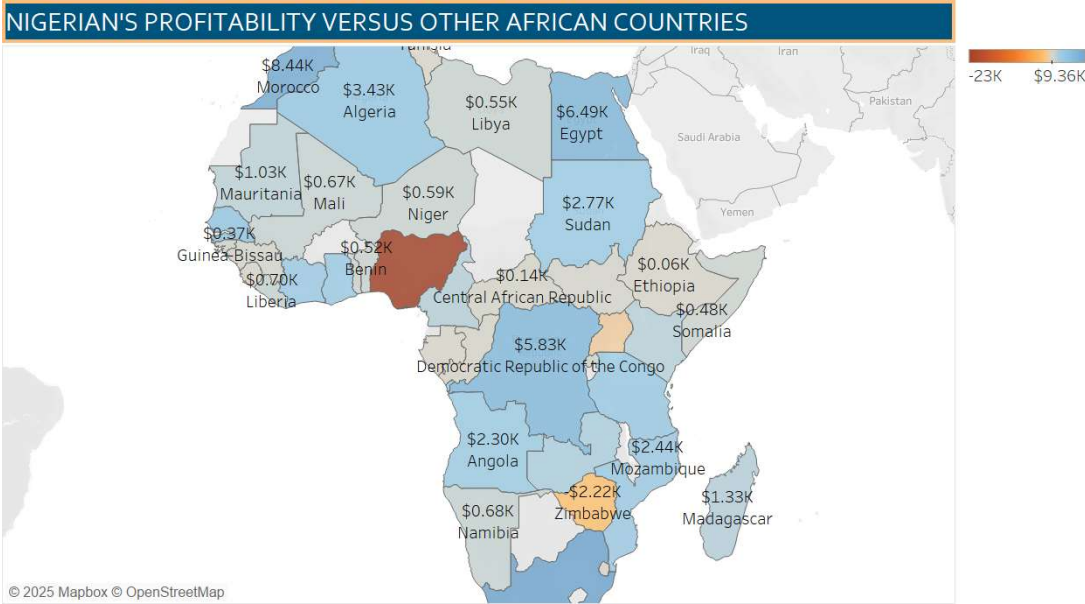
suggesting that marketing and logistics strategies should prioritize sustaining and growing this market.

Top 3 Profitable Products for Each Country



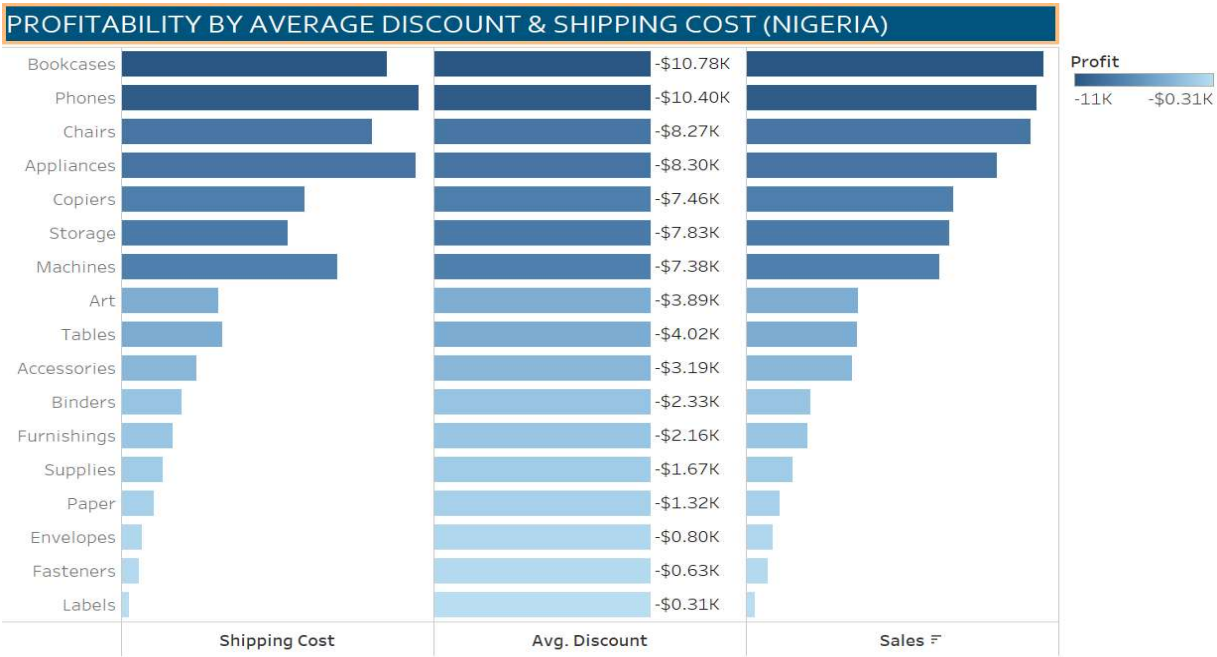
The Canon image CLASS 2200 Copier is the most profitable product in the U.S., far outperforming others with \$15.68K in profit. In India and Cina, bookcases and low-cost electronics like smart phones and copiers dominate the top 3. The repeated appearance of the Sauder Classic Bookcase across both markets suggests consistent regional demand for affordable furniture.

Comparing Nigeria’s Profitability with Other African Countries



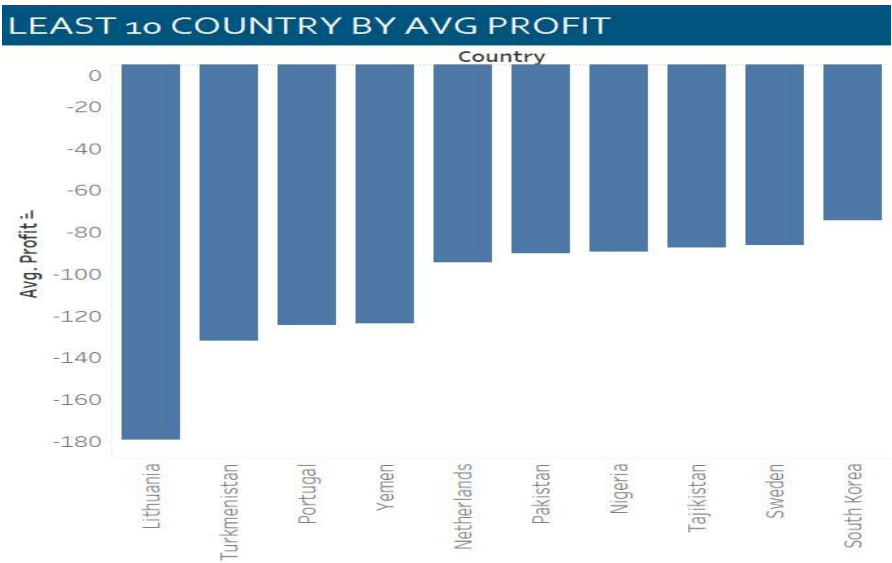
Nigeria recorded the **lowest profitability** among all African countries, with a significant loss compared to its regional peers. In contrast, countries like Morocco (\$8.44K), Egypt (\$6.49K), and the DRC (\$5.83K) showed strong positive margins. This suggests potential issues in Nigeria’s operations — such as high return rates, pricing challenges, or logistics inefficiencies — that may require targeted investigation.

Effect of Discount & Shipping Cost in Nigeria’s Profitability



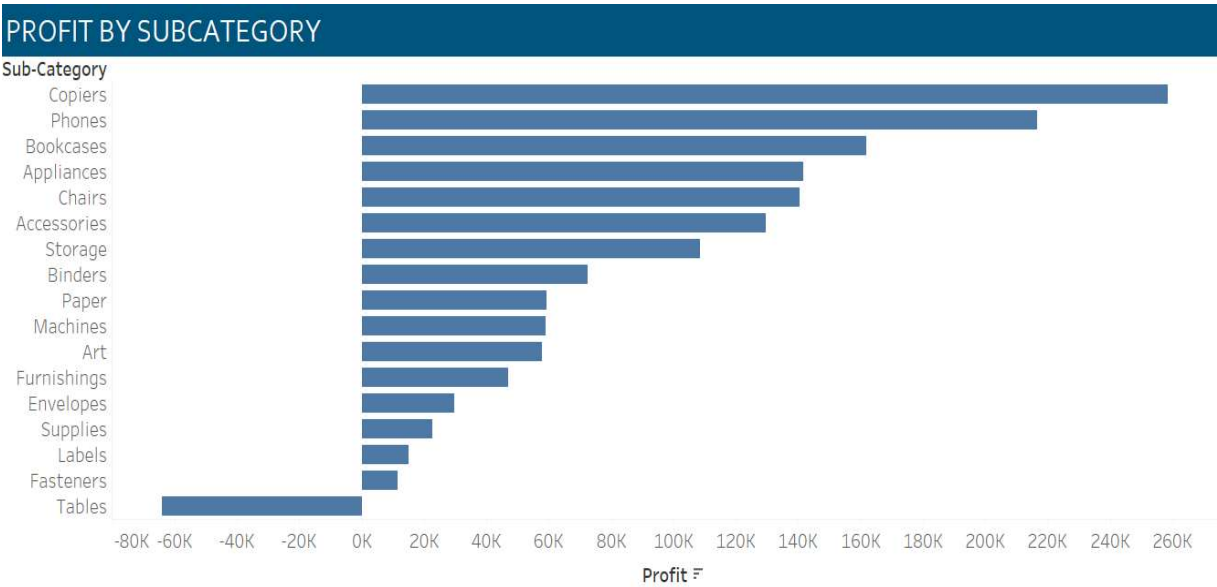
In Nigeria, heavy losses from subcategories like **Bookcases** and **Phones** (each over **\$10K in losses**) were driven by **high shipping costs and deep discounting**. This pattern likely explains Nigeria's poor profitability overall and highlights the need for cost control in bulky or discounted products.

Least 10 Country by Average Profit



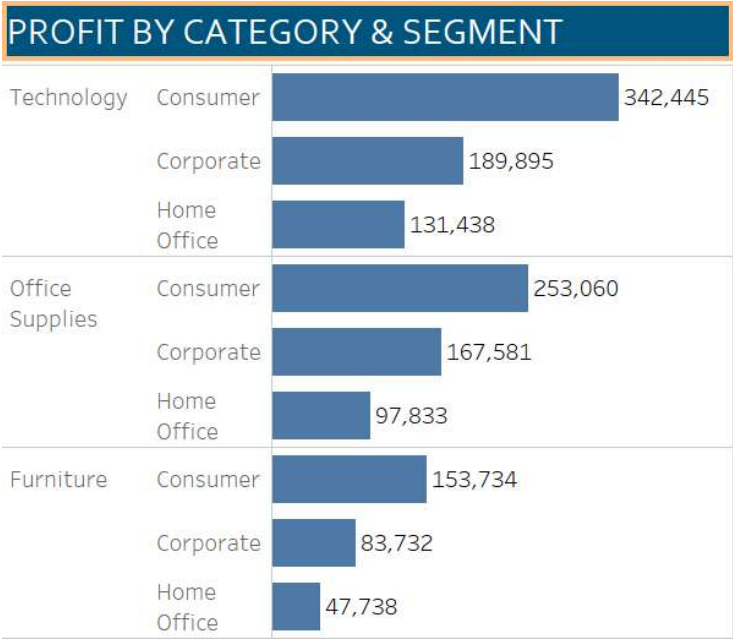
This chart shows the 10 countries with the lowest average profit, with **Lithuania** performing the worst. Several countries, including **Nigeria**, consistently report negative profits, indicating potential issues with costs, pricing, or demand. These regions may require strategic review to improve profitability.

Profit By Subcategory



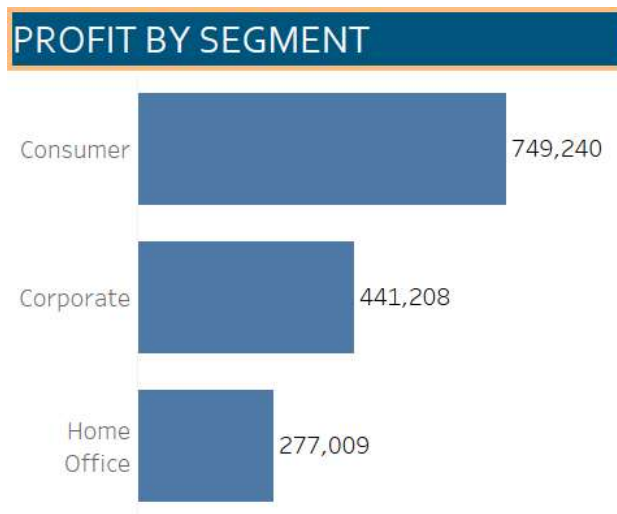
The chart shows that "Copiers" and "Phones" generated the highest profits, while "Tables" and "Fasteners" showed significantly lower profit levels. The insight points to a need for scaling profitable subcategories and conducting deeper analysis into the drivers behind underperformance.

Profit By Category and Segment



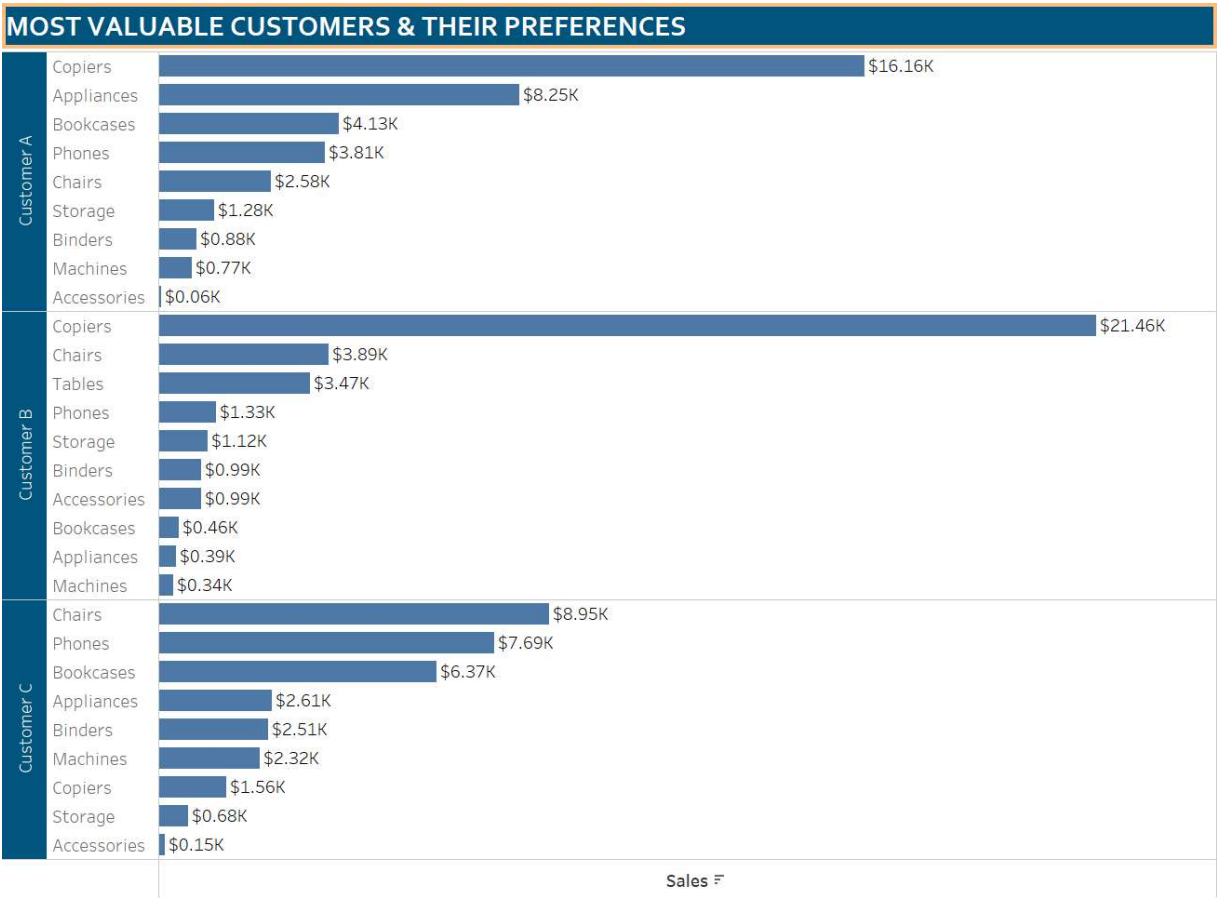
The visual shows that the Consumer segment consistently generates the highest profit across all product categories, with Technology leading at \$342,445. In contrast, the Home Office segment yields the lowest profit in each category, suggesting a potential area for targeted growth or strategic reevaluation.

### Profit by Customer Segment



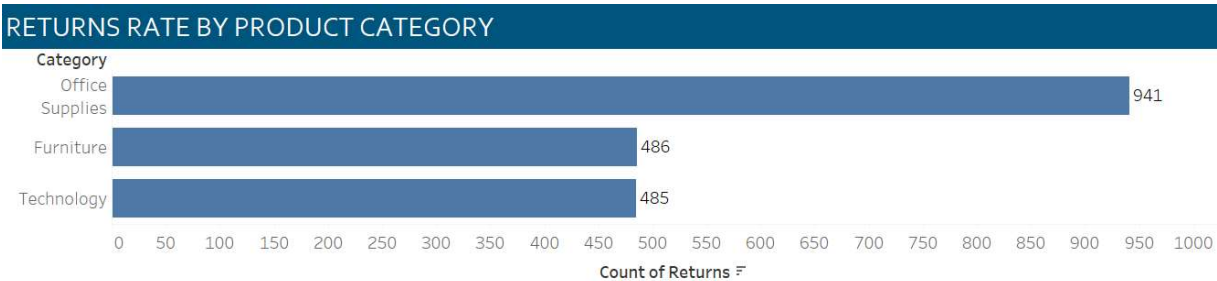
This chart highlights that the Consumer segment is the most profitable overall, generating \$749,240 in profit—significantly more than the Corporate and Home Office segments. The Home Office segment lags behind, contributing the least at \$277,009, indicating lower engagement or spending in that segment.

Top 3 High-Value Customers and Their Purchasing Preferences



The chart reveals that the most valuable customers have distinct purchasing preferences: Customers A & B primarily invest heavily in Copiers, while Customer C focuses more on Chairs and Phones. This indicates varied product demand among top customers, suggesting tailored marketing and inventory strategies could maximize sales potential.

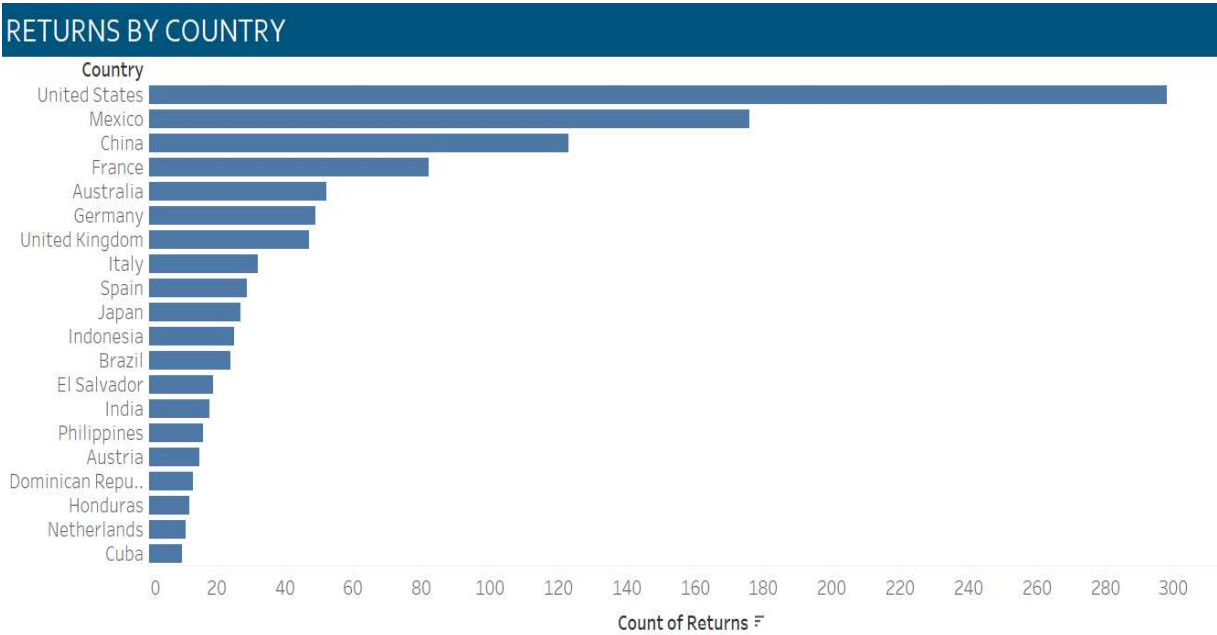
Return Rate by Product Category





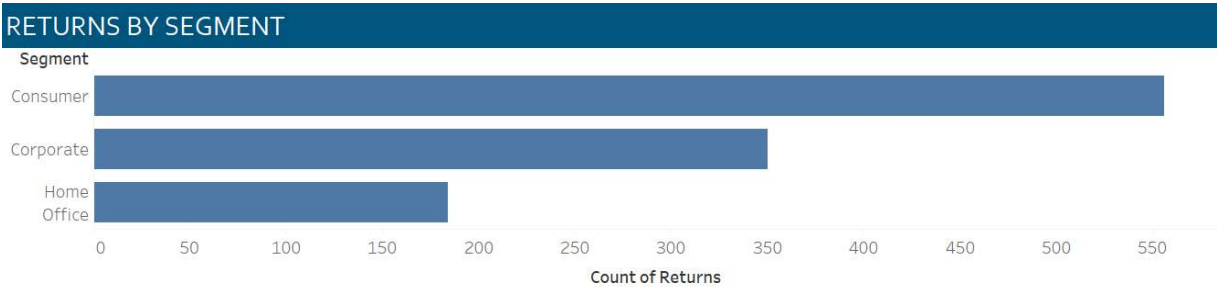
The **Office Supplies** category has the highest return rate, with **941 returns**, nearly double that of **Furniture (486)** and **Technology (485)**. This suggests potential issues with product quality, customer satisfaction, or order fulfillment in that category.

Return Rate by Country



The **United States** recorded the highest number of returns, followed by **Mexico** and **China**. This pattern may indicate customer satisfaction issues or product quality concerns in these key markets, warranting further investigation.

Return Rate by Customer Segment

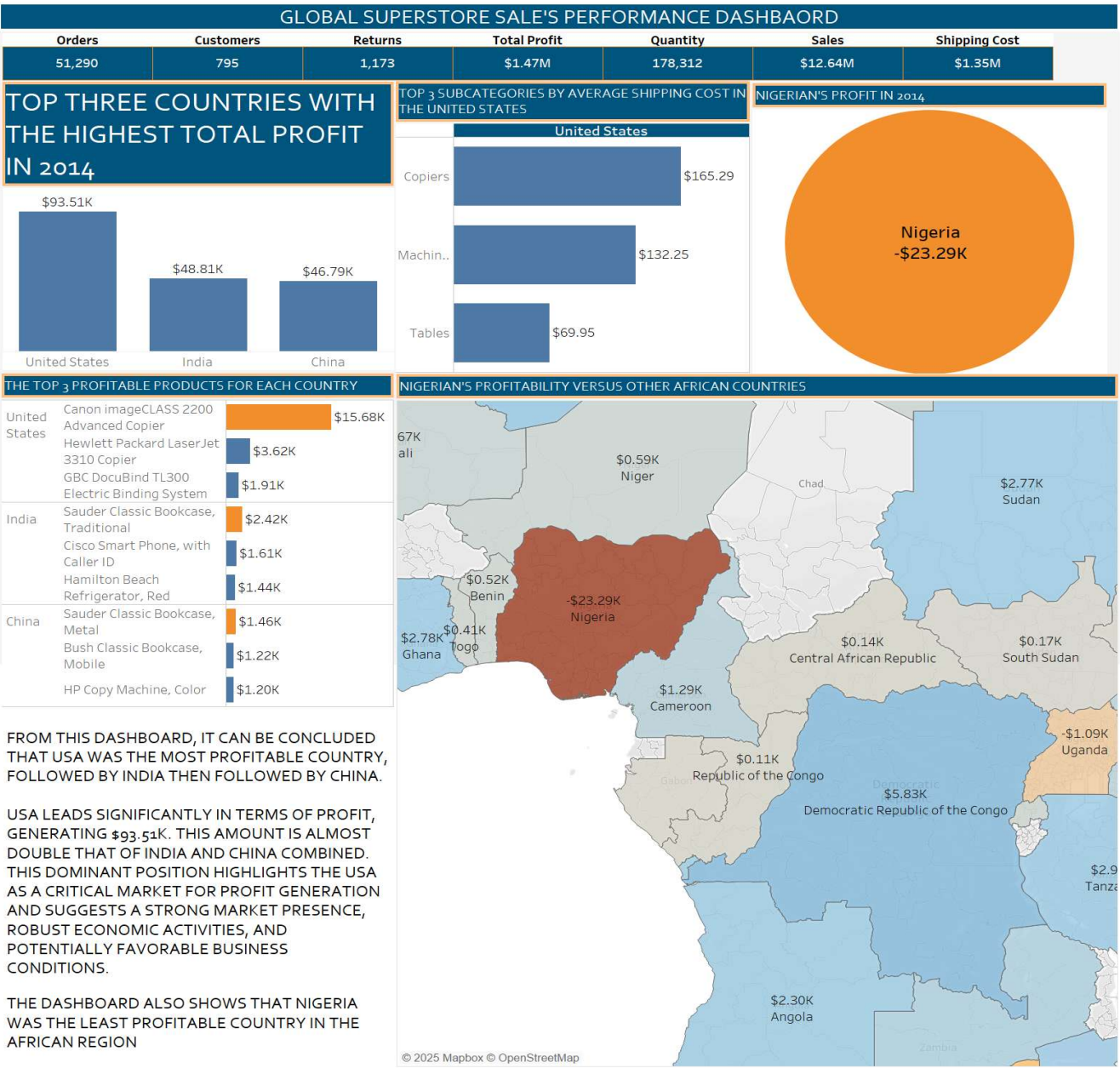


The **Consumer** segment has the highest number of returns, followed by **Corporate**, while **Home Office** records the lowest. This suggests a need to investigate product or service issues affecting consumer purchases.

The Effect of Shipping Cost and Discount on Profit

AVG SHIPPING COST & DISCOUNT FACTORS			
Sub-Catego..	Avg. Discount	Avg. Shipping Cost	Avg. Profit
Machines	0.70	452	-6,600
Tables	0.40	23	-104
Supplies	0.20	16	-64
Phones	0.40	65	-94
Binders	0.56	9	-36
Storage	0.20	11	-25
Accessories	0.20	4	0
Fasteners	0.00	3	4
Art	0.20	5	3
Furnishings	0.20	5	7
Paper	0.20	6	22
Chairs	0.27	22	11
Appliances	0.20	48	33

The table shows that Machines incur the highest average shipping cost (\$452) and discount factor (70%), resulting in a significant average loss (-\$6,600). In contrast, subcategories like Chairs and Appliances have moderate shipping costs and discounts but maintain positive average profits, highlighting the need to reevaluate pricing and logistics strategies for high-cost, low-profit items like Machines.



### Key Highlights

- The U.S. led in profitability in 2014, generating nearly 2x more profit than India or China.
- Shipping cost significantly impacted profit margins in regions like Nigeria and a few other countries.
- Technology products contributed most to overall profit but had high return rates in some

regions.

- The **Consumer segment** recorded the highest overall profit across categories, but also had the **highest number of returns**, suggesting strong purchasing power but potential post-sale issues.

### **Strategic Business Outcomes**

- **Revenue Optimization:** Identified high-profit segments, products, and customer groups for targeted marketing.
- **Cost Reduction:** Uncovered subcategories and regions with high shipping costs and return rates, guiding cost-control efforts.
- **Growth Strategy:** Used regional performance data to **pinpoint high-potential markets** such as the **U.S., India, and China**, and to identify strong product categories for future investment.
- **Executive Reporting:** Delivered clear, data-driven recommendations to guide strategic decisions.

### **Recommendations**

1. Invest in top-performing regions (U.S., India, China) by offering faster shipping or targeted promotions.
2. Investigate shipping inefficiencies in low-margin countries and explore local warehousing options.
3. Enhance customer retention strategies for high-value segments (e.g., loyalty programs for corporate buyers).